

IV. Emission-related components also include any other part whose only purpose is to reduce emissions or whose failure will increase emissions without significantly degrading engine/equipment performance.

APPENDIX II TO PART 1068—EMISSION-RELATED PARAMETERS AND SPECIFICATIONS

This appendix specifies emission-related parameters and specifications that we refer to for describing such things as emission-related defects or requirements related to rebuilding engines.

I. Basic Engine Parameters for Reciprocating Engines.

1. Compression ratio.
2. Type of air aspiration (natural, Roots-blown, supercharged, turbocharged).
3. Valves (intake and exhaust).
 - a. Head diameter dimension.
 - b. Valve lifter or actuator type and valve lash dimension.
4. Camshaft timing.
 - a. Valve opening—intake exhaust (degrees from top-dead center or bottom-dead center).
 - b. Valve closing—intake exhaust (degrees from top-dead center or bottom-dead center).
 - c. Valve overlap (degrees).
5. Ports—two stroke engines (intake and/or exhaust).
 - a. Flow area.
 - b. Opening timing (degrees from top-dead center or bottom-dead center).
 - c. Closing timing (degrees from top-dead center or bottom-dead center).

II. Intake Air System.

1. Roots blower/supercharger/turbocharger calibration.
2. Charge air cooling.
 - a. Type (air-to-air; air-to-liquid).
 - b. Type of liquid cooling (engine coolant, dedicated cooling system).
 - c. Performance.
3. Temperature control system calibration.
4. Maximum allowable inlet air restriction.

III. Fuel System.

1. General.
 - a. Engine idle speed.
 - b. Engine idle mixture.
2. Carburetion.
 - a. Air-fuel flow calibration.
 - b. Idle mixture.
 - c. Transient enrichment system calibration.
- d. Starting enrichment system calibration.
- e. Altitude compensation system calibration.
- f. Hot idle compensation system calibration.
3. Fuel injection for spark-ignition engines.
 - a. Control parameters and calibrations.
 - b. Idle mixture.
 - c. Fuel shutoff system calibration.
 - d. Starting enrichment system calibration.

- e. Transient enrichment system calibration.
- f. Air-fuel flow calibration.
- g. Altitude compensation system calibration.
- h. Operating pressure(s).
- i. Injector timing calibration.
4. Fuel injection for compression-ignition engines.
 - a. Control parameters and calibrations.
 - b. Transient enrichment system calibration.
 - c. Air-fuel flow calibration.
 - d. Altitude compensation system calibration.
 - e. Operating pressure(s).
 - f. Injector timing calibration.

IV. Ignition System for Spark-ignition Engines.

1. Control parameters and calibration.
2. Initial timing setting.
3. Dwell setting.
4. Altitude compensation system calibration.
5. Spark plug voltage.

V. Engine Cooling System—thermostat calibration.

VI. Exhaust System—maximum allowable back pressure.

VII. System for Controlling Exhaust Emissions.

1. Air injection system.
 - a. Control parameters and calibrations.
 - b. Pump flow rate.
2. EGR system.
 - a. Control parameters and calibrations.
 - b. EGR valve flow calibration.
3. Catalytic converter system.
 - a. Active surface area.
 - b. Volume of catalyst.
 - c. Conversion efficiency.
4. Backpressure.

VIII. System for Controlling Crankcase Emissions.

1. Control parameters and calibrations.
2. Valve calibrations.

IX. Auxiliary Emission Control Devices (AECD).

1. Control parameters and calibrations.
2. Component calibration(s).

X. System for Controlling Evaporative Emissions.

1. Control parameters and calibrations.
2. Fuel tank.
 - a. Volume.
 - b. Pressure and vacuum relief settings.

XI. Warning Systems Related to Emission Controls.

1. Control parameters and calibrations.
2. Component calibrations.

APPENDIX III TO PART 1068—HIGH-ALTITUDE COUNTIES

In some cases the standard-setting part includes requirements or other specifications that apply for high-altitude counties. The